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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,598	02/26/2002	Hongfeng Yin	10010924-1	7083

7590 02/25/2005

AGILENT TECHNOLOGIES, INC.  
Legal Department, DL429  
Intellectual Property Administration  
P.O. Box 7599  
Loveland, CO 80537-0599

EXAMINER

THERKORN, ERNEST G

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/085,598

Applicant(s)

YIN ET AL.

Examiner

Ernest G. Therkorn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20, 26, 27, 29-31 and 36-38 is/are pending in the application.
- 4a) Of the above claim(s) 6 and 8-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 16-20, 26, 27, 29-31, and 36-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 7, 16-20, 26, 27, 29-31, and 36-38 are rejected under 35 U.S.C. 102(E) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over either Moon (U.S. Patent No. 6,245,227) or Ramsey (U.S. Patent No. 6, 033,546). The claims are considered to read on either Moon (U.S. Patent No. 6,245,227) or Ramsey (U.S. Patent No. 6, 033,546). However, if a difference exists between the claims and either Moon (U.S. Patent No. 6,245,227) or Ramsey (U.S. Patent No. 6, 033,546), it would reside in optimizing the elements of either Moon (U.S. Patent No. 6,245,227) or Ramsey (U.S. Patent No. 6, 033,546). It would have been obvious to optimize the elements of either Moon (U.S. Patent No. 6,245,227) or Ramsey (U.S. Patent No. 6, 033,546) to enhance separation.

Claims 1-5, 7, 16-20, 26, 27, 29-31, and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Moon (U.S. Patent No. 6,245,227) or Ramsey (U.S. Patent No. 6, 033,546) in view of Ramsey (U.S. Patent No. 6,110,343) and Parce (U.S. Patent No. 6,012,902). At best, the claims differ from either Moon (U.S. Patent No. 6,245,227) or Ramsey (U.S. Patent No. 6, 033,546) in reciting use of pressure driven flow. Ramsey (U.S. Patent No. 6,110,343) (column 1, lines 10-18) discloses that

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a hydraulic force is an alternative to use of an electrically driven force in delivering fluids through the channels of a microchip. Parce (U.S. Patent No. 6,012,902) (column 3, lines 6-32) discloses that use of a micropump to generate a flow is useful where pressure based flow is particularly desirable, where electric fields are prohibited, and where materials are not easily or predictably transported by electrokinetic flow. It would have been obvious to use pressure driven flow in either Moon (U.S. Patent No. 6,245,227) or Ramsey (U.S. Patent No. 6,033,546) because Ramsey (U.S. Patent No. 6,110,343) (column 1, lines 10-18) discloses that a hydraulic force is an alternative to use of an electrically driven force in delivering fluids through the channels of a microchip and because Parce (U.S. Patent No. 6,012,902) (column 3, lines 6-32) discloses that use of a micropump to generate a flow is useful where pressure based flow is particularly desirable, where electric fields are prohibited, and where materials are not easily or predictably transported by electrokinetic flow.

The remarks urge that Moon (U.S. Patent No. 6,245,227) does not disclose gradient generation means. However, Moon (U.S. Patent No. 6,245,227) on column 31, lines 27-35 discloses providing two additional reservoirs to produce gradient elution. As such, gradient generation means is considered to be disclosed in Moon (U.S. Patent No. 6,245,227).

The remarks urge that Moon (U.S. Patent No. 6,245,227)'s pumping is electrokinetic pumping and is not pressure driven flow. However, the claimed pressure driven flow would read on electrokinetic pumping. A pressure is inherently created

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during pumping. Accordingly, the phase "pressure driven flow" reads on the pressure that is created by voltage differences.

The remarks urge patentability based upon the allegation that a cover is not disclosed by Moon (U.S. Patent No. 6,245,227). However, a cover is disclosed in Moon (U.S. Patent No. 6,245,227) on column 25, lines 14-16 to enclose the reservoir and separation channel.

The remarks urge patentability over Moon (U.S. Patent No. 6,245,227) based upon use of a plurality of inlets. Moon (U.S. Patent No. 6,245,227) shows multiple inlets in Figure 35 prior to separation posts 416M.

The remarks urge patentability over Ramsey (U.S. Patent No. 6, 033,546) based upon the use of mixing conduits. However, the claims do not appear to recite the use of a mixing conduit.

The remarks urge that it would not be obvious to have pressure driven flow in either Moon (U.S. Patent No. 6,245,227) or Ramsey (U.S. Patent No. 6, 033,546) based upon the teachings of Ramsey (U.S. Patent No. 6,110,343) and Parce (U.S. Patent No. 6,012,902). However, Ramsey (U.S. Patent No. 6,110,343) (column 1, lines 10-18) discloses that a hydraulic force is an alternative to use of an electrically driven force in delivering fluids through the channels of a microchip. Parce (U.S. Patent No. 6,012,902) (column 3, lines 6-32) discloses that use of a micropump to generate a flow is useful where pressure based flow is particularly desirable, where electric fields are prohibited, and where materials are not easily or predictably transported by electrokinetic flow. As such, it would have been obvious to use pressure driven flow in

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either Moon (U.S. Patent No. 6,245,227) or Ramsey (U.S. Patent No. 6,033,546) because Ramsey (U.S. Patent No. 6,110,343) (column 1, lines 10-18) discloses that a hydraulic force is an alternative to use of an electrically driven force in delivering fluids through the channels of a microchip and because Parce (U.S. Patent No. 6,012,902) (column 3, lines 6-32) discloses that use of a micropump to generate a flow is useful where pressure based flow is particularly desirable, where electric fields are prohibited, and where materials are not easily or predictably transported by electrokinetic flow.

Claims 6 and 8-15 have been withdrawn from consideration as being drawn to a non-elected species.

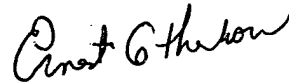
**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication should be directed to E. Therkorn at telephone number (571) 272-1149. The official fax number is (703) 872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Ernest G. Therkorn**  
**Primary Examiner**  
**Art Unit 1723**

EGT  
February 22, 2005